## Amendments to the Claims

Please amend the claims as follows with the following version of the claims in accordance with revised 37 CFR § 1.121.

> Page 2 Hsu - 09/965,145



- 1. (Canceled).
- 2. (Canceled).
- 3. (Canceled).
- 4. (Canceled).
- 5. (Canceled)
- 6. (Canceled)
- 7. (Canceled)

Page 3 Hsu - 09/965,145

(Amended) A method for generating a shadow effect for objects in a graphical user interface, wherein the graphical user interface simulates a three-dimensional coordinate space by displaying objects whose dimensions are computed in the three-dimensional coordinate space, the method comprising:

generating a shadow object corresponding to a first object, wherein the shadow object has dimensions and coordinates that are identical to the first object;

determining an occluding region of the shadow object that partially occludes an illumination of a second object,

displacing the shadow object along an x-dimension or a y-dimension of the three-dimensional coordinate space by a user-configurable displacement distance value;

computing a z-dimensional difference value between a z-value of the first object and a z-value of a the second object;

calculating a translation value that is directly proportional to the computed z-dimensional difference value;

> Page 4 Hsu - 09/965,145

5

15

translating the occluding region of the shadow object along an x-dimension or a y-dimension within the three-dimensional coordinate space in accordance with the calculated translation value along the x-dimension or the y-dimension within the three-dimensional coordinate space that was not used to displace the shadow object such that the translation of the shadow object and the displacement of the shadow object occur along different dimensions in either order:

determining an occluding region of the displaced, translated shadow object that partially occludes the second object: and

displaying the first object, an unoccluded portion of the second object, and the occluding region of the shadow object on a display device.

(Original) The method of claim & wherein the first object, the unoccluded portion of the second object, and the occluding region of the shadow object are rendered into a bitmap prior to displaying on the display device.

(Canceled). 10.

(Canceled). 11.

> Page 5 Hsu - 09/965,145

15

20



12. (Canceled).

7.
19. (Original) The method of claim %, wherein the shadow object is transparent.

(mt

14. (Canceled).

15. (Original) The method of claim 8, wherein the shadow object is subjected to a diffusion filter.

(Canceled).

17. (Canceled).

15

20

(Original) The method of claim s, wherein the objects are two-dimensional planar objects within the three-dimensional coordinate space, wherein the objects are parallel to an x-y plane in the three-dimensional coordinate space, wherein the objects may be translated along either of a set of three dimensions in the three-dimensional coordinate space but not rotated about an x-axis in the three-dimensional coordinate space or about a y-axis in the three-dimensional coordinate space.

Page 6 Hsu - 09/965,145 second object,

A computer program product in a computer-readable medium for use in a data processing system for generating a shadow effect for objects in a graphical user interface, wherein the graphical user interface simulates a three-dimensional coordinate space by displaying objects whose dimensions are computed in the three-dimensional coordinate space, the computer program product comprising:

15

20

5

instructions for generating a shadow object corresponding to a first object, wherein the shadow object has dimensions and coordinates that are identical to the first object; instructions for determining an occluding region of the shadow object that partially occludes an illumination of a

instructions for displacing the shadow object along an x-dimension or a y-dimension of the three-dimensional coordinate space by a user-configurable displacement distance <u>value;</u>

instructions for computing a z-dimensional difference value between a z-value of the first object and a z-value of a the second object;

instructions for calculating a translation value that is directly proportional to the computed z-dimensional difference value;

> Page 7 Hsu - 09/965,145

p. 10

instructions for translating the occluding region of the shadow object along an x-dimension or a y-dimension within the three-dimensional coordinate space in accordance with the calculated translation value along the x-dimension or the y-dimension within the three-dimensional coordinate space that was not used to displace the shadow object such that the translation of the shadow object and the displacement of the shadow object occur along different dimensions in either order;

instructions for determining an occluding region of the displaced, translated shadow object that partially occludes second object; and

instructions for displaying the first object, an unoccluded portion of the second object, and the occluding region of the shadow object on a display device.

(Original) The computer program product of claim 16 wherein the first object, the unoccluded portion of the second object, and the occluding region of the shadow object are rendered into a bitmap prior to displaying on the display device.

(Canceled).

Page 8 Hsu - 09/965,145

5

15

(Canceled).

(Canceled).

(Original) The computer program product of claim wherein the shadow object is transparent.

15

(Canceled).

The computer program product of claim 1/3/ wherein the shadow object is subjected to a diffusion filter.

27. (Canceled).

(Canceled).

Page 9 Hsu - 09/965,145

The computer program product of claim (Original) wherein the objects are two-dimensional planar objects within the three-dimensional coordinate space, wherein the objects are parallel to an x-y plane in the three-dimensional coordinate space, wherein the objects may be translated along either of a set of three dimensions in the three-dimensional coordinate space but not rotated about an x-axis in the three-dimensional coordinate space or about a y-axis in the three-dimensional coordinate space.

Page 10 Hsu - 09/965,145

p.13

An apparatus for generating a shadow effect for objects in a graphical user interface, wherein the graphical user interface simulates a three-dimensional coordinate space by displaying objects whose dimensions are computed in the three-dimensional coordinate space, the apparatus comprising:

means for generating a shadow object corresponding to a first object, wherein the shadow object has dimensions and coordinates that are identical to the first object;

means for determining an occluding region of the shadow object that partially occludes an illumination of a second

means for displacing the shadow object along an x-dimension or a y-dimension of the three-dimensional coordinate space by a user-configurable displacement distance value;

means for computing a z-dimensional difference value between a z-value of the first object and a z-value of a the second object;

means for calculating a translation value that is directly proportional to the computed z-dimensional difference value;

> Page 11 Hsu - 09/965,145

15

20



means for translating the occluding region of the shadow object along an x-dimension or a y-dimension within the three-dimensional coordinate space in accordance with the calculated translation value along the x-dimension or the y-dimension within the three-dimensional coordinate space that was not used to displace the shadow object such that the translation of the shadow object and the displacement of the shadow object occur along different dimensions in either order;

means for determining an occluding region of the displaced, translated shadow object that partially occludes the second object; and

means for displaying the first object, an unoccluded portion of the second object, and the occluding region of the shadow object on a display device.

The apparatus of claim 3/0, wherein the 礼. (Original) first object, the unoccluded portion of the second object, and the occluding region of the shadow object are rendered into a bitmap prior to displaying on the display device.

(Canceled).

Page 12 Hsu - 09/965,145

5

15

p.15

ैं ३३. (Original) The apparatus of claim 30, wherein the objects are two-dimensional planar objects within the three-dimensional coordinate space, wherein the objects are parallel to an x-y plane in the three-dimensional coordinate space, wherein the objects may be translated along either of a set of three dimensions in the three-dimensional coordinate space but not rotated about an x-axis in the three-dimensional coordinate space or about a y-axis in the three-dimensional coordinate space.

> Page 13 Hsu - 09/965,145